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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,599	10/19/2001	Stephen J. Sicola	P01-3685	1960

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HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER

PATEL, NIMESH G

ART UNIT	PAPER NUMBER
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2112

DATE MAILED: 04/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/086,599

Applicant(s)

SICOLA ET AL.

Examiner

Nimesh G Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-11 is/are rejected.
- 7) ☒ Claim(s) 3,4 and 12-16 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1,4.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 5-6, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Sicola et al.('776), hereinafter referred to as Sicola.

3. Regarding claim 1, Sicola discloses a controller for positioning on a shelf of a data storage cabinet in a mass storage system, comprising: an interface to a data communication loop(Figure 3A, 60) linked to device enclosures each including a plurality of data devices and an enclosure processor(Figure 3A, 62, 63, 64, 65) wherein the interface is adapted for transmitting control commands onto the data communication loop(Column 5, Lines 2-3); a cabinet bus interface controller(Figure 3A, EMU0) linked to a cabinet bus in the data storage cabinet and adapted to receive enclosure reporting messages from the device enclosures including environmental information for the device enclosures and to transmit subenclosure messages including environmental information for the controller(Column 5, Lines 33-36); and a processor for creating the control commands and the subenclosure messages(Column 4, Lines 40-43).

4. Regarding claim 2, Sicola discloses a controller, wherein the control commands are addressed to one of the device enclosures designated as a primary reporting device(Column 4, Lines 63-65).

5. Regarding claim 5, Sicola discloses a controller, wherein at least one of the device enclosures is positioned in a data storage cabinet differing from the data storage

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cabinet housing the controller(Figure 2, Cabinet 1, 50) and wherein the two data storage cabinets are communicatively-linked with a cabinet communication network, the different data storage cabinet including a cabinet bus linked to the cabinet communication network to provide a communication path for the enclosure reporting messages from at least one of the device enclosures(Figure 2; Column 5, Lines 33-35).

6. Regarding claim 6, Sicola discloses a controller, wherein the cabinet bus interface controller is configured to receive cabinet identification and shelf identification signals from the cabinet bus and to determine a shelf identifier from the shelf identification signals, and wherein the subenclosure messages include the shelf identifier and the cabinet identification(Column 5, Lines 28-56).

7. Regarding claim 11, Sicola discloses a method of controlling communications in a data storage complex, comprising: providing a controller including a processor for creating and transmitting control commands and a cabinet bus interface controller for providing an interface between the processor and other devices in the storage complex; and communicatively linking the controller to a plurality of enclosures with a data communication loop and with a cabinet bus, wherein the control commands are transmitted over the data communication loop and wherein environmental status messages are received by the controller over the cabinet bus(Column 5, Lines 2-3; Column 4, Lines 40-43; Column 5, Lines 33-36).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which

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said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sicola, in view of Coffey et al.(US Pub 2002/0010883), hereinafter referred to as Coffey.

11. Regarding claim 7, Sicola does not specifically disclose a controller, wherein the enclosure reporting messages comprise SCSI-3 Enclosure (SES) data. However, Coffey discloses messages comprising SCSI-3 Enclosure (SES) data SES(Paragraph 34).

Therefore it would have been obvious to one of ordinary skill in the art to use SES data, as disclosed by Coffey, in the system of Sicola since this would comply with a standard that is commonly used in the industry.

12. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sicola, in view of Martinez et al.('665), hereinafter referred to as Martinez.

13. Regarding claim 8, Sicola does not specifically disclose a controller, wherein the cabinet bus interface controller emulates a memory image to the processor including read only memory, non-volatile read and write memory, and read and write memory. However Martinez discloses emulating a memory including read only memory, non-volatile read and write memory, and read and write memory(Column 7, Lines 61-65).Therefore it would have been obvious to include emulation of memory, as disclosed

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by Martinez, in the system of Sicola, since this would allow cabinet and shelf information to be stored in memory.

14. Regarding claim 9, Martinez discloses the read only memory includes a shelf identifier field for storing a shelf identifier for the controller and a cabinet number field for storing a cabinet identifier for the data storage cabinet(Column 7, Lines 61-65).

15. Regarding claim 10, Martinez discloses transmitting interrupt signals based on changes to the memory image(Column 7, Lines 61-65).

Allowable Subject Matter

16. Claims 3-4 and 12-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Sicola does not disclose a designating or changing a primary reporting group. Sicola also does not disclose bypassing malfunctioning ones of devices on the data communication loop.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art further disclose art related to data storage complexes.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nimesh G Patel whose telephone number is 703-305-7583. The examiner can normally be reached on M-F, 8:30-6:00.

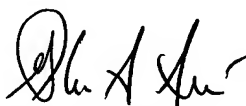
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark H Rinehart can be reached on 703-305-4815. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nimesh G Patel
Examiner
Art Unit 2112

NP NP
April 19, 2004



Glenn A. Auve
Primary Patent Examiner
Technology Center 2100